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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/613,748      | 07/02/2003  | Thomas J. Bate       | 10253/12            | 5661             |

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EXAMINER

ZACHARIA, RAMSEY E

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1773

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/613,748

Applicant(s)

BATE, THOMAS J.

Examiner

Ramsey Zacharia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 15-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/7/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election of Group I in the reply filed on 19 July 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 1-14 are rendered indefinite because they are directed to a coating but the claims do not positively recite a substrate on which the coating is applied. This renders the meaning of "coating" indefinite because a coating is only a coating if it is coated onto something. This rejection may be overcome by inserting the phrase --on a substrate-- after the term "coating" on line 1 of claims 1 and 8.
5. The term "PFA" renders claims 4, 5, 11, and 12 indefinite because it is not clear what material this abbreviation is intended to designate. On page 4, lines 24-26, the term PFA is used to designate both a copolymer of tetrafluoroethylene and perfluoro (ethyl vinyl ether) as well as a

copolymer of tetrafluoroethylene and perfluoro (propyl vinyl ether). The issue is further complicated by the fact that "PFA" is traditionally used to designate a copolymer of tetrafluoroethylene and a perfluoroalkylvinyl ether (see column 20, lines 29-30 of U.S. Patent 6,183,869), i.e. a material that is generic to both definitions of PFA and the MFA of the instant application. When the alkyl group of the perfluoroalkylvinyl ether is methyl, the resulting tetrafluoroethylene/perfluoroalkylvinyl ether copolymer is MFA. When the alkyl group is an ethyl group, the resulting tetrafluoroethylene/perfluoroalkylvinyl ether copolymer is a copolymer of tetrafluoroethylene and perfluoro (ethyl vinyl ether). And when the alkyl group is a propyl group, the resulting tetrafluoroethylene/perfluoroalkylvinyl ether copolymer is a copolymer of tetrafluoroethylene and perfluoro (propyl vinyl ether).

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 6, 8, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Okuda et al. (U.S. Patent 6,183,869).

Okuda et al. teach a primer layer which is applied on a substrate column 3, lines 17-30). The primer is composed of a silane coupling agent, a heat resistant resin, and fluororesin (column 6, lines 25-30). The heat resistant resin may be polyamideimide or polyether sulfone (column 7, lines 13-21). The ratio of heat resistant resin to fluororesin ranges from 10:90 to

90:10, a range that includes values of about 1:4 (column 9, lines 3-6). Iron oxide, a conductive pigment, may also be added to the primer layer which is heated after application (column 22, lines 58-65).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 6-8, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuda et al. (U.S. Patent 6,183,869).

Okuda et al. teach a primer layer which is applied on a substrate column 3, lines 17-30). The primer is composed of a silane coupling agent, a heat resistant resin, and fluoro-resin (column 6, lines 25-30). The heat resistant resin may be polyamideimide or polyether sulfone (column 7, lines 13-21). Iron oxide, a conductive pigment, may also be added to the primer layer which is heated after application (column 22, lines 58-65).

The ratio of heat resistant resin to fluoro-resin ranges from 10:90 to 90:10, a range that includes values of about 1:4 (column 9, lines 3-6). In the event that the use of 1 part by weight heat resistant resin to 4 parts by weight fluoro-resin is not readily envisaged by one skilled in the art, it would be obvious to select any value from the disclosed range, including a ratio of about 1:4.

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Regarding claims 7 and 14, it would be obvious to one skilled in the art to add a black pigment to the primer layer for aesthetic reasons in applications in which it is desired to have a black primer since the addition of pigments to polymer systems is well within the ability of one skilled in the art.

10. Claims 2-5 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuda et al. (U.S. Patent 6,183,869) in view of Gebauer (U.S. Patent 4,546,141).

Okuda et al. teach all the limitations of claims 2-5 and 9-12 as outlined above except that the PFA of Okuda et al. is a genus (tetrafluoroethylene/perfluoroalkylvinyl ether) of the MFA and PFA of the instant invention (see the discussion in paragraph 5 above).

Gebauer is directed to a primer comprising a mixture of a copolymer of tetrafluoroethylene and perfluoroalkylvinyl ether and a resin such as polyether sulfone (abstract). The alkyl group of the perfluoroalkylvinyl ether unit is a perfluoroalkyl radical having 1 to 10 carbon atoms (column 2, lines 58-62). When the perfluoroalkyl radical has 1 carbon atom, the resulting copolymer is "MFA" as described in the instant invention. When the perfluoroalkyl radical has 2 or 3 carbon atom, the resulting copolymer is "PFA" as described in the instant invention.

Gebauer shows that perfluoroalkyl radicals having 1 to 10 carbon atoms are known in the art as functionally equivalent for tetrafluoroethylene/perfluoroalkyl vinyl ether copolymer used in primer systems. Therefore, because these perfluoroalkyl groups were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found

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it obvious to use perfluoroalkyl groups having 1, 2 or 3 carbon atoms in the copolymer of tetrafluoroethylene and perfluoroalkylvinyl ether of Okuda et al.

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Zacharia whose telephone number is (571) 272-1518. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (571) 272-1516. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**Ramsey Zacharia**  
Primary Examiner  
Tech Center 1700